

REMARKS

Claims 1-5 and 10-21 are pending.

Claims 6-9 have been canceled.

Claim 1 has been amended to delete the compounds of Formula (III). Also, the expression of the ring formation is changed for clarification on the basis of page 16, lines 2-3 of the present specification.

Support for new claims 12-13 can be found in page 44, 3rd paragraph of the specification.

Support for new claim 14 can be found in page 44, 3rd paragraph of the specification, which recites: "The metal complex may be used alone, or two or more complexes of the same or different metals may also be used in combination."

Support for new claim 15 can be found in page 46, 2nd full paragraph of the specification, which recites: "In the present invention, the chemical sensitization may be performed."

Support for new claim 16 can be found in page 46, 1st full paragraph of the specification, which recites: "Photosensitive silver halide grains used for the present invention are preferably subjected to chemical sensitization by sulfur sensitization, selenium sensitization or tellurium sensitization."

Support for new claim 17 can be found in page 53, 4th paragraph of the specification, which recites:

"As antifoggants, stabilizers and stabilizer precursors that can be used for the present invention, there can be mentioned, for example, those mentioned in JP-A-10-62899, paragraph 0070 and European Patent Publication EP0803764A1, from page 20, line 57 to page 21, line 7. Antifoggants preferably used for the present invention are organic halides. Examples thereof include, for example, those disclosed in JP-A-11-65021, paragraphs 0111 to 0112. Particularly preferred are the polyhalogenated compounds of formula (II) mentioned in JP-A-10-339934 (specific examples are tribromomethylnaphthylsulfone,

tribromomethylphenylsulfone,
tribromomethyl(4-(2,4,6-trimethylsulfonyl)phenyl)sulfone, etc.)." (Emphasis added).

Claims 18-21 correspond to claims 2-5, respectively.

No new matter has been added by way of the above-amendment.

The following sections correspond to the sections of the outstanding Office Action.

Sections 3-10

The following rejections are pending:

- A) Claims 1-5 and 8-11 are rejected under 35 U.S.C. § 112, first paragraph for new matter;
- B) Claims 1-5 and 8-11 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite;
- C) Claims 1-5 and 8-11 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Kirk et al. (US 5,460,938); and
- D) Claims 1-5 and 8-11 are rejected under 35 U.S.C. § 102(e) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Miura et al. (US 6,248,512).

Applicants respectfully traverse all of the rejections.

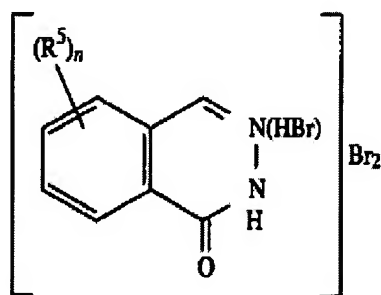
Applicants respond to all of these rejections in combination, since it appears that each rejection is based on the Examiner's misunderstanding of the scope of claim 1 with respect to the compounds encompassed by inventive Formula (IV). In response to the Examiner's comments, Applicants have amended claim 1 to make the definition of the ring formation clearer. Claim 1 now recites that only when R^{43} represents $-N(R^{44})(R^{45})$, R^{44} and R^{45} may be taken together to form a ring and at least one of R^{41} and R^{42} and at least one of R^{44} and R^{45} may be taken together to form a ring. Also, when R^{43} represents an alkyl group, an aryl group or a heterocyclic group,

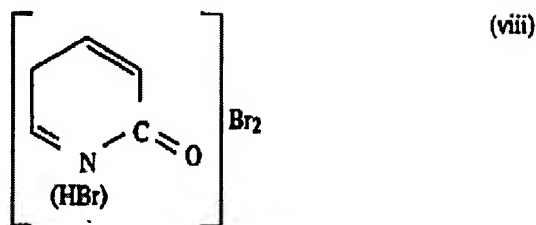
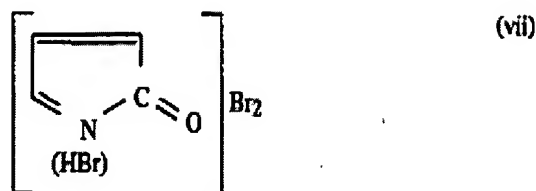
R^{43} and R^{41} are not taken together to form a ring and R^{43} and R^{42} are not taken together to form a ring.

It is respectfully submitted that a person skilled in the art would readily understand the scope of claim 1 based on the above-amendment so as to satisfy the requirements of 35 USC 112, second paragraph. Also, there is clear support for this amendment at page 16, lines 2-3 of the present specification so that the claims do not contain "new matter" and the written description requirement of 35 USC 112, first paragraph is satisfied.

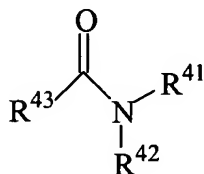
Applicants now turn to the prior art based rejections.

It is respectfully submitted that Formula (IV) in claim 1 does not encompass the compounds of Miura et al., U.S. Patent No. 6,248,512 and Kirk et al., U.S. Patent No. 5,460,938. With respect to Kirk et al., the Examiner has taken the position that compounds (iv), (vii) and (viii) of column 5 of Kirk et al. are encompassed by the present claims which have the following structures:





The Examiner will note that the genus of Formula (IV) in claim 1 does not encompass any of these compounds. Claim 1 now recites the following genus of Formula (IV):



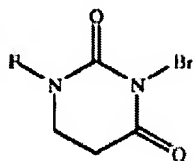
(IV)

wherein R^{41} and R^{42} independently represent an alkyl group, an aryl group or a heterocyclic group, R^{43} represents an alkyl group, an aryl group, a heterocyclic group or $N-(R^{44})(R^{45})$ where R^{44} and R^{45} independently represent an alkyl group, an aryl group or a heterocyclic group, R^{41} and R^{42} may be taken together to form a ring, and when R^{43} represents $-N(R^{44})(R^{45})$, then R^{44} and R^{45} may be taken together to form a ring or at least one of R^{41} and R^{42} and at least one of R^{44} and R^{45} may be taken together to form a ring.

With respect to formula (iv) of Kirk et al., the Examiner will note that the nitrogens are bonded to one another directly and each of the nitrogens and the carbon atom of the carbonyl fall within the same ring. This species is not encompassed by instant Formula (IV). With respect to formulae (vii) and (viii) of Kirk et al., the Examiner will note that instant Formula (IV) does not allow for a ring to be formed between either R^{41} or R^{42} with R^{43} , and as such, these species are

not encompassed by instant Formula (IV). Accordingly, significant patentable distinctions exist between the present invention and the teachings of Kirk et al.

Also, the Examiner has taken the position that the compounds in columns 10-14 of Miura et al. are encompassed by inventive formula (IV). Applicants respectfully submit that the above-amendment excludes compounds in columns 10-14. For example, compound A42, as appearing in column 14, has the following structure:



A42

Here, this compound is not encompassed by newly amended formula (IV), since the nitrogen atom which is surrounded by the two carbonyls is also bonded to a bromine atom. Since neither R⁴¹ nor R⁴² can be a halogen atom, compound A42 of Miura et al. is not encompassed by formula (IV) as presently amended.

According to MPEP 2131 and 2143.03, all claim limitations must be taught or suggested in the cited reference(s) in order for there to be a *prima facie* case of anticipation or obviousness. In view of the fact that there is no overlap in the compounds taught and suggested by Miura et al. and Kirk et al. with the inventive genus of formula (IV), a *prima facie* case of anticipation and obviousness cannot be said to exist.

In view of the foregoing, withdrawal of Rejections A)-D) is respectfully requested.

Section 11

Claims 1-5 and 7-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bojora et al. U.S. Patent No. 3,667,959. Applicants respectfully traverse the rejection.

The Examiner cites Bojora et al. for teaching photothermographic materials comprising compounds of Formula (III). In view of the deletion of the sulfinyl compounds of Formula (III) from claim 1, this rejection is rendered moot. However, the Examiner will note that the sulfinyl compounds of Formula (III) appear in new claim 12. As such, Applicants offer the following comments on the patentability of claim 12 over the teachings of Bojora et al.

The Examiner will note that new claim 12 recites that the photothermographic material comprises "a metal or metal complex of Group VIII to Group X in the periodic table of elements." Bojora et al. are silent regarding the metal and metal complex of Group VIII to Group X. Bojora et al. do not teach or suggest the use of these materials.

Accordingly, claims 12-21 are patentable over Bojora et al.

Drawings

Applicants respectfully request acknowledgement that the drawings are acceptable.

Priority Documents

Applicants respectfully request that the Examiner acknowledges receipt of the priority documents in the parent application, Serial No. 09/695,864.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Garth M. Dahlen, Ph.D., Esq. (Reg. No. 43,575) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to our Deposit Account No. 02-2448 for

Application No. 10/643,221
Amendment dated July 11, 2006
Reply to Office Action of January 11, 2006

Docket No.: 2870-0264P

any additional fees required under 37 C.F.R. § 1.16 or under § 1.17; particularly, extension of time fees.

Dated: July 11, 2006

Respectfully submitted,

By 

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